

CLAIMS

That which is claimed is:

1. A fully cooked, stabilized pasta composition comprising cooked pasta prepared from a pasta dough comprising about 55 to about 80 percent high protein wheat flour, about 1 to about 5 percent wheat gluten, 0 to about 20 percent egg product, 0 to about 3 percent dough conditioner, sufficient nisin-containing cultured whey to provide at least about 150 IU nisin/g pasta dough, and sufficient water to provide a total moisture content of about 25 to about 35 percent; wherein the fully cooked, stabilized pasta composition is shelf stable at refrigeration temperature for at least 120 days; and wherein the fully cooked, stabilized pasta composition is of the warm and serve variety.
2. The fully cooked, stabilized pasta composition of claim 1, wherein the pasta dough comprises about 60 to about 70 percent high protein wheat flour, about 1 to about 4 percent wheat gluten, 0 to about 20 percent egg product, 0 to about 2 percent dough conditioner, sufficient nisin-containing cultured whey to provide about 200 to about 1200 IU nisin/g pasta dough, and sufficient water to provide a total moisture content of about 25 to about 35 percent.
3. The fully cooked, stabilized pasta composition of claim 2, wherein the pasta dough comprises about 62 to about 68 percent high protein wheat flour, about 2 to about 3.5 percent wheat gluten, 8 to about 12 percent egg product, about 0.01 to about 1 percent dough conditioner, sufficient nisin-containing cultured whey to provide about 300 to about 700 IU nisin/g pasta dough, and sufficient water to provide a total moisture content of about 28 to about 32 percent.

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4. The fully cooked, stabilized pasta composition of claim 1 further comprising a pasta filling or a pasta sauce, wherein the pasta filling or pasta sauce is stabilized using the same or a similar nisin-containing cultured whey.

5. The fully cooked, stabilized pasta composition of claim 2 further comprising a pasta filling or a pasta sauce, wherein the pasta filling or pasta sauce is stabilized using the same or a similar nisin-containing cultured whey.

6. The fully cooked, stabilized pasta composition of claim 3 further comprising a pasta filling or a pasta sauce, wherein the pasta filling or pasta sauce is stabilized using the same or a similar nisin-containing cultured whey.

7. The fully cooked, stabilized pasta composition of claim 1, wherein the nisin-containing cultured whey is prepared by a process comprising:

- (i) inoculating a pasteurized dairy composition with a culture of a nisin-producing microorganism;
- (ii) incubating the composition until the pH attains a value between about 6.2 and about 4.0 and a whey and curd mixture is formed; and
- (iii) separating the whey from the whey and curd mixture, wherein the separated whey is the nisin-containing cultured whey.

8. The fully cooked, stabilized pasta composition of claim 3, wherein the nisin-containing cultured whey is prepared by a process comprising:

- (i) inoculating a pasteurized dairy composition with a culture of a nisin-producing microorganism;
- (ii) incubating the composition until the pH attains a value between about 6.2 and about 4.0 and a whey and curd mixture is formed; and
- (iii) separating the whey from the whey and curd mixture, wherein the separated whey is the nisin-containing cultured whey.

9. The fully cooked, stabilized pasta composition of claim 1, wherein the nisin-containing cultured whey is prepared by a process comprising:

- (i) preparing an aqueous composition comprising sweet whey from the fermentation of a cheese, whey protein concentrate, and a protein hydrolysate;
- (ii) fermenting the aqueous composition with a nisin-producing culture until the pH attains about 5.5;
- (iii) maintaining the pH of the fermenting composition at about 5.5 for 8-10 hrs; and
- (iv) allowing the pH of the fermenting composition to drop to 4.8 or lower, wherein the resulting composition comprises the nisin-containing cultured whey.

10. The fully cooked, stabilized pasta composition of claim 3, wherein the nisin-containing cultured whey is prepared by a process comprising:

- (i) preparing an aqueous composition comprising sweet whey from the fermentation of a cheese, whey protein concentrate, and a protein hydrolysate;
- (ii) fermenting the aqueous composition with a nisin-producing culture until the pH attains about 5.5;
- (iii) maintaining the pH of the fermenting composition at about 5.5 for 8-10 hrs; and
- (iv) allowing the pH of the fermenting composition to drop to 4.8 or lower, wherein the resulting composition comprises the nisin-containing cultured whey.

11. A method of making a fully cooked, stabilized pasta composition, said method comprising the steps of

- (i) preparing a pasta dough comprising about 55 to about 80 percent high protein wheat flour, about 1 to about 5 percent wheat gluten, 0 to about

20 percent egg product, 0 to about 3 percent dough conditioner, sufficient nisin-containing cultured whey to provide at least about 150 IU nisin/g pasta dough, and sufficient water to provide a total moisture content of about 25 to about 35 percent; and

(ii) cooking the pasta dough to form the fully cooked, stabilized pasta composition;

wherein the fully cooked, stabilized pasta composition is shelf stable at refrigeration temperature for at least 120 days; and wherein the fully cooked, stabilized pasta composition is of the warm and serve variety.

12. The method of claim 11, wherein the pasta dough comprises about 60 to about 70 percent high protein wheat flour, about 1 to about 4 percent wheat gluten, 0 to about 20 percent egg product, 0 to about 2 percent dough conditioner, sufficient nisin-containing cultured whey to provide about 200 to about 1200 IU nisin/g pasta dough, and sufficient water to provide a total moisture content of about 25 to about 35 percent.

13. The method of claim 12, wherein the pasta dough comprises about 62 to about 68 percent high protein wheat flour, about 2 to about 3.5 percent wheat gluten, 8 to about 12 percent egg product, about 0.01 to about 1 percent dough conditioner, sufficient nisin-containing cultured whey to provide about 300 to about 700 IU nisin/g pasta dough, and sufficient water to provide a total moisture content of about 28 to about 32 percent.

Sub A 14. The method of claim 11, wherein the fully cooked, stabilized pasta composition further comprises a pasta filling or a pasta sauce and wherein the pasta filling or pasta sauce is stabilized using the same or a similar nisin-containing cultured whey as used to prepare the pasta dough.

15. The method of claim 12, wherein the fully cooked, stabilized pasta composition further comprises a pasta filling or a pasta sauce and wherein the pasta filling or pasta sauce is stabilized using the same or a similar nisin-containing cultured whey as used to prepare the pasta dough.

16. The method of claim 13, wherein the fully cooked, stabilized pasta composition further comprises a pasta filling or a pasta sauce and wherein the pasta filling or pasta sauce is stabilized using the same or a similar nisin-containing cultured whey as used to prepare the pasta dough.

17. The method of claim 11, wherein the nisin-containing cultured whey is prepared by a process comprising:

- (i) inoculating a pasteurized dairy composition with a culture of a nisin-producing microorganism;
- (ii) incubating the composition until the pH attains a value between about 6.2 and about 4.0 and a whey and curd mixture is formed; and
- (iii) separating the whey from the whey and curd mixture, wherein the separated whey is the nisin-containing cultured whey.

18. The method of claim 13, wherein the nisin-containing cultured whey is prepared by a process comprising:

- (i) inoculating a pasteurized dairy composition with a culture of a nisin-producing microorganism;
- (ii) incubating the composition until the pH attains a value between about 6.2 and about 4.0 and a whey and curd mixture is formed; and
- (iii) separating the whey from the whey and curd mixture, wherein the separated whey is the nisin-containing cultured whey.

19. The method of claim 11, wherein the nisin-containing cultured whey is prepared by a process comprising:

- (i) preparing an aqueous composition comprising sweet whey from the fermentation of a cheese, whey protein concentrate, and a protein hydrolysate;
- (ii) fermenting the aqueous composition with a nisin-producing culture until the pH attains about 5.5;
- (iii) maintaining the pH of the fermenting composition at about 5.5 for 8-10 hrs; and
- (iv) allowing the pH of the fermenting composition to drop to 4.8 or lower, wherein the resulting composition comprises the nisin-containing cultured whey.

20. The method of claim 13, wherein the nisin-containing cultured whey is prepared by a process comprising:

- (i) preparing an aqueous composition comprising sweet whey from the fermentation of a cheese, whey protein concentrate, and a protein hydrolysate;
- (ii) fermenting the aqueous composition with a nisin-producing culture until the pH attains about 5.5;
- (iii) maintaining the pH of the fermenting composition at about 5.5 for 8-10 hrs; and
- (iv) allowing the pH of the fermenting composition to drop to 4.8 or lower, wherein the resulting composition comprises the nisin-containing cultured whey.

21. A method of inhibiting the growth of pathogenic microorganisms in a fully cooked, stabilized pasta composition, said method comprising:

- (i) preparing a pasta dough comprising about 55 to about 80 percent high protein wheat flour, about 1 to about 5 percent wheat gluten, 0 to about 20 percent egg product, 0 to about 3 percent dough conditioner, sufficient nisin-containing cultured whey to provide at least about 150 IU nisin/g pasta

dough, and sufficient water to provide a total moisture content of about 25 to about 35 percent; and

(ii) cooking the pasta dough to form the fully cooked, stabilized pasta composition;

wherein the amount of nisin-containing cultured whey in the pasta dough is effective to inhibit the growth of pathogenic microorganisms, wherein the fully cooked, stabilized pasta composition is shelf stable at refrigeration temperature for at least 120 days; and wherein the fully cooked, stabilized pasta composition is of the warm and serve variety.

22. The method of claim 21, wherein the pasta dough comprises about 60 to about 70 percent high protein wheat flour, about 1 to about 4 percent wheat gluten, 0 to about 20 percent egg product, 0 to about 2 percent dough conditioner, sufficient nisin-containing cultured whey to provide about 200 to about 1200 IU nisin/g pasta dough, and sufficient water to provide a total moisture content of about 25 to about 35 percent.

23. The method of claim 22, wherein the pasta dough comprises about 62 to about 68 percent high protein wheat flour, about 2 to about 3.5 percent wheat gluten, 8 to about 12 percent egg product, about 0.01 to about 1 percent dough conditioner, sufficient nisin-containing cultured whey to provide about 300 to about 700 IU nisin/g pasta dough, and sufficient water to provide a total moisture content of about 28 to about 32 percent.

24. The method of claim 21, wherein the fully cooked, stabilized pasta composition further comprises a pasta filling or a pasta sauce and wherein the pasta filling or pasta sauce is stabilized using the same or a similar nisin-containing cultured whey as used to prepare the pasta dough.

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25. The method of claim 22, wherein the fully cooked, stabilized pasta composition further comprises a pasta filling or a pasta sauce and wherein the pasta filling or pasta sauce is stabilized using the same or a similar nisin-containing cultured whey as used to prepare the pasta dough.

26. The method of claim 23, wherein the fully cooked, stabilized pasta composition further comprises a pasta filling or a pasta sauce and wherein the pasta filling or pasta sauce is stabilized using the same or a similar nisin-containing cultured whey as used to prepare the pasta dough.

27. The method of claim 21, wherein the nisin-containing cultured whey is prepared by a process comprising:

- (i) inoculating a pasteurized dairy composition with a culture of a nisin-producing microorganism;
- (ii) incubating the composition until the pH attains a value between about 6.2 and about 4.0 and a whey and curd mixture is formed; and
- (iii) separating the whey from the whey and curd mixture, wherein the separated whey is the nisin-containing cultured whey.

28. The method of claim 23, wherein the nisin-containing cultured whey is prepared by a process comprising:

- (i) inoculating a pasteurized dairy composition with a culture of a nisin-producing microorganism;
- (ii) incubating the composition until the pH attains a value between about 6.2 and about 4.0 and a whey and curd mixture is formed; and
- (iii) separating the whey from the whey and curd mixture, wherein the separated whey is the nisin-containing cultured whey.

29. The method of claim 21, wherein the nisin-containing cultured whey is prepared by a process comprising:

- (i) preparing an aqueous composition comprising sweet whey from the fermentation of a cheese, whey protein concentrate, and a protein hydrolysate;
- (ii) fermenting the aqueous composition with a nisin-producing culture until the pH attains about 5.5;
- (iii) maintaining the pH of the fermenting composition at about 5.5 for 8-10 hrs; and
- (iv) allowing the pH of the fermenting composition to drop to 4.8 or lower, wherein the resulting composition comprises the nisin-containing cultured whey.

30. The method of claim 23, wherein the nisin-containing cultured whey is prepared by a process comprising:

- (i) preparing an aqueous composition comprising sweet whey from the fermentation of a cheese, whey protein concentrate, and a protein hydrolysate;
- (ii) fermenting the aqueous composition with a nisin-producing culture until the pH attains about 5.5;
- (iii) maintaining the pH of the fermenting composition at about 5.5 for 8-10 hrs; and
- (iv) allowing the pH of the fermenting composition to drop to 4.8 or lower, wherein the resulting composition comprises the nisin-containing cultured whey.